mines in Northern New Jersey. On motion of Mr. Fraley the paper was referred to the same committee.

A paper was presented for publication in the Transactions by the Secretary, in behalf of the author, Dr. Tafel, of St. Louis, entitled "Phonology, or the Science of Elementary Sounds," being Part I, or an independent Introduction to an exhaustive analysis of the English language, especially as to the history of its literal pronunciation. On motion of Mr. Fraley the paper was referred to Dr. Coates, Prof. Coppée, and Prof. Alexander of Baltimore.

Dr. Bache alluded to the subject of spectrum analysis, and the results obtained by the spectroscope.

Mr. Lesley referred to Dr. Volger's discovery of the homocercal fishtail in the roofing slate of Caub, on the Rhine, and its bearing upon the development theory.

Professor Cresson exhibited and described a phonogrammatic system of telegraphic symbols, invented by Dr. Charles M. Cresson.

Pending nominations Nos. 423 and 424 were read.

The Librarian exhibited copies of the first division of the Catalogue, Class I, pp. 16-68, just printed.

And the Society was adjourned.

Stated Meeting, August 16, 1861.

Present, five members.

Judge Sharswood, Vice-President, in the Chair.

A letter, accepting membership, was received from Prof. D. Hyrtl, of Vienna, dated July 5, 1861.

A letter, resigning membership, was received from Dr. John J. Reese, of Philadelphia, dated August 12, 1861.

A letter, announcing a donation for the Library, was received from the Astor Library, dated July 29, 1861.

Letters acknowledging the receipt of publications were re-

ceived from the R. I. Geological Institute and R. I. Geographical Society of Vienna, dated Oct. 1860; from the A. Antiquarian Society, dated Worcester, Aug. 9; the Botanical Society of Canada, dated Kingston, Aug. 9; the Connecticut and New Jersey Historical Societies, dated Aug. 9, 1861.

Donations for the Library were received from the Holland Society at Harlem; the Royal Astronomical Society at London; the Astor Library; the New York State Library and State University; the Philadelphia Academy of Natural Sciences, and publishers of the Medical News; the Smithsonian Institution, and American Colonization Society; the editors of Silliman's Journal of Arts and Sciences at New Haven; Beriah Botfield, of Cambridge, England; and Dr. Dorr, of Philadelphia.

The committee on Dr. Hayden's paper reported in favor of its publication in the Transactions. On motion of Dr. Bache it was so ordered.

Dr. Coates, in behalf of the committee on Dr. Tafel's paper, made an informal report, and the committee was continued.

Dr. Bache exhibited and described a spectroscope which he had just received from London.

The minutes of the last meeting of the Board of Officers and Council were read.

Pending nominations Nos. 423, 424 were read.

On motion of Dr. Bache the recommendation of the committee in regard to completing the printing of the Catalogue was adopted.

And the Society was adjourned.

Stated Meeting, September 20, 1861.

Present, seven members.

Professor Cresson, Vice-President, in the Chair.

Letters acknowledging publications were received from the Essex Institute, Salem, Mass., dated Aug. 16; the Lyceum